This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for producing two families of biofuels from at least one triglyceride, formed between at least one fatty acid and glycerol, characterized in that it comprises:

at least one transesterification step in which said triglyceride is reacted by heterogeneous catalysis with at least one primary monoalcohol selected from methanol and ethanol to produce at least one methyl and/or ethyl ester of the fatty acids of the starting triglyceride(s) as the first ~~biofuels~~ biofuels, and glycerol, separating heterogeneous catalyst from products, and subjecting the glycerol to a vacuum treatment to remove said at least one primary monoalcohol, said products being free of by-products; and

an etherification step in which the crude vacuum treated glycerol from the transesterification step is reacted ~~directly (i.e.~~ without prior chemical ~~treatment)~~ or purification with at least one olefinic hydrocarbon containing 4 to 12 carbon atoms to obtain at least one glycerol acetal as the second ~~biofuels~~ biofuel; and/or

an acetalization step in which the crude vacuum treated glycerol from the transesterification step is reacted directly, without prior chemical or purification treatment, with at least one compound selected from aldehydes, ketones ~~an~~ and acetals derived from aldehydes or ketones, to obtain at least one glycerol acetal as the second biofuel.

2. (Original) A process according to claim 1, characterized in that in the transesterification step, a solid catalyst is used selected from those comprising at least one oxide of at least one element selected from groups IIB, IVA an VB of the periodic table.

3. (Original) A process according to claim 2, characterized in that, in the transesterification step, a solid catalyst is used selected from those comprising:

a mixture of at least aluminium oxide with at least one other oxide of at least one element

selected from groups IIB, IVA and VB;

and those comprising:

at least one mixed oxide formed between aluminium oxide and at least one other oxide of at least one element selected from groups IIB, IVA and VB.

4. (Currently Amended) A process according to claim 3, characterized in that the group IIB, IVA or VB element is selected from ~~zinc~~, titanium, zirconium, antimony and bismuth.

5. (Currently Amended) A process according to claim 2, characterized in that said catalyst comprises:

~~a mixture of zinc oxide and alumina or a zinc aluminate, for example of the spinel type, having the following formula:~~

~~$ZnAl_2O_4$, x1 ZnO, y1 Al_2O_3~~

~~x1 and y1 each being in the range 0 2;~~

titanium oxide or a mixture of titanium oxide and alumina having the following formula:

$$(TiO_{x2})_{y2}(Al_2O_3)_{I-y2}$$

x2 having a value of 1.5 to 2.2 and y2, representing the weight ratio of the two oxides, having a value of 0.0005 to 1;

a mixture of antimony oxide and alumina having the following formula:

$$(SbO_{x3})_{y3}(Al_2O_3)_{I-y3}$$

x3 having a value of 1.2 to 2.6 and y3, representing the weight ratio of the two oxides, having a value of 0.005 to 0/995;

a mixture of zinc oxides and titanium or a mixture of zinc oxide, titanium oxide and alumina having the following formula:

$$[(ZnO)_a - (TiO_2)_b]_{y4}\ [Al_2O_3]_{I-y4}$$

a having a value in the range 0.5 to 5, b having a value in the range 0.5 to 5 and y4 having a value of 0.0005 to 1: or

a mixture of oxides of bismuth and titanium or a mixture of bismuth oxide, titanium

oxide and alumina having the following formula:

$$[(Bi_2O_3)_a - (TiO_2)_b]_{y4}[Al_2O_3]_{I-y4}$$

a having a value in the range 0.5 to 5, b having a value in the range 0.5 to 5 and y4 having a value of 0.005 to 1.

6. (Currently Amended) A process according to ~~claim 5~~ claim 1, characterized in that the catalyst is a zinc aluminate of the spinel type having the following formula:

$$ZnAl_2O_4,\ x1ZnO,\ yl\ Al_2O_3$$

x1 and y1 each being in the range 0 to 2.

7. (Previously Presented) A process according to claim 1 characterized in that, in the transesterification step, batch reactor catalysis is carried out.

8. (Previously Presented) A process according to claim 1 characterized in that, in the transesterification step, continuous fixed bed catalysis is carried out.

9. (Original) A process according to claim 8, characterized in that:

vegetable oil and methanol are introduced as upflow into a reactor preheated to a temperature which may be in the range 170° to 250°C at an operating temperature in the range 3 to 6 MPa, with an HSV (volume of oil/volume of catalyst/hour) of 0.3/1 to 3/1 and an alcohol/oil weight ratio of 2/1 to 0.1/1; and

at the reactor outlet, depressurizing to at least partially eliminate the excess methanol and the glycerol formed is eliminated by simple static decantation;

the conversion of the methyl esters obtained being in the range 85% to 97%.

10. (Original) A process according claim 9, characterized in that the reaction I is continued in a second catalysis step carried out under the same operating conditions as in the first catalysis step, to achieve a methyl ester conversion of 97.5% to 99.5%.

11. (Previously Presented) A process according to claim 1, characterized in that the etherification step is carried out between the glycerol from the transesterification step and isobutene, in the presence of an acid catalyst.

12. (Previously Presented) A process for preparing a fuel, characterized in that it comprises:

at least one transesterification step in which said triglyceride is reacted by heterogeneous catalysis with at least one primary monoalcohol selected from methanol and ethanol to produce at least one methyl and/or ethyl ester of the fatty acids of the starting triglyceride(s) as the first biofuels, and glycerol, said products being free of by-products; and

an etherification step in which the glycerol from the transesterification step is reacted directly (i.e. without prior chemical treatment) with at least one olefinic hydrocarbon containing 4 to 12 carbon atoms to obtain at least one glycerol acetal as the second biofuels; and

incorporating the glycerol acetal obtained into a fuel.

13. (Original) A process according to claim 12, characterized in that said fuel is a gas oil, a biodiesel or a gasoline.

14. (Previously Presented) A process according to claim 13, characterized in that said fuel further comprises the methyl and/or ethyl ester.

15. (Previously Presented) A process according to claim 1, characterized in that the acetalization step is carried out between the glycerol obtained from the transesterification step and an aldehyde, a ketone or an acetal derived from said aldehyde or said ketone in the presence of an acid catalyst.

16. (Previously Presented) A process for preparing a fuel, characterized in that it comprises:

at least one transesterification step in which said triglyceride is reacted by heterogeneous catalysis with at least one primary monoalcohol selected from methanol and ethanol to produce at least one methyl and/or ethyl ester of the fatty acids of the starting triglyceride(s) as the first biofuels, and glycerol, said products being free of by-products; and

an acetalization step in which the glycerol from the transesterification step is reacted directly, without prior chemical treatment, with at least one compound selected from aldehydes, ketones an acetals derived from aldehydes or ketones, to obtain at least one glycerol acetal; and

incorporating the glycerol acetal obtained into a fuel.

17. (Original) A process according to claim 16, characterized in that said fuel is a gas oil, a biodiesel or a gasoline.

18. (Currently Amended) A process according to claim 17, characterized in that said fuel further comprises the methyl and/or ethyl ester of fatty acids of starting triglyceride.

19. (New) A process according to claim 1, wherein said at least one triglyceride is rapeseed oil or sunflower oil.

20. (New) A process according to claim 4, wherein said at least one triglyceride is rapeseed oil or sunflower oil.